

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Web Site: www.ct.gov/csc
Hearing Program
Docket No. 461
Tuesday, October 6, 2015
11:00 a.m.
Connecticut Siting Council, Hearing Room 2
10 Franklin Square, New Britain, Connecticut

- I. Opening by Council
 - A. Statement read by Chair.
 - B. Comments by Public Official(s) (if any)
 - C. Motions
 - D. Administrative Notice taken by Council

FEDERAL

- 1. NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES, NATIONAL INSTITUTES OF HEALTH, EMF, Electric and Magnetic Fields Associated with the Use of Electric Power, June 2002, available at http://www.niehs.nih.gov/health/assets/docs-p-z/results-of-emf-research-emf-questions-answers-booklet.pdf
- 2. NATIONAL RESEARCH COUNCIL, Research on Power-Frequency Fields Completed Under the Energy Policy Act of 1992, National Academy of Sciences, 1999, available at http://books.nap.edu/openbook.php?isbn=0309065437
- 3. Proclamation No. 8460 Critical Infrastructure Protection Month, 2009, 74 Fed. Reg. 234, December 8, 2009, *available at* http://www.presidency.ucsb.edu/ws/index.php?pid=86954
- 4. Presidential Executive Order No. 13636, Improving Critical Infrastructure Cybersecurity, 78 FED. REG. 11739, February 19, 2013, *available at* http://www.archives.gov/federal-register/executive-orders/2013.html
- 5. UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, National Register of Historic Places, September 2014, available at http://www.nps.gov/history/nr/research/index.htm
- 6. FEDERAL AVIATION ADMINISTRATION, UNITED STATES DEPARTMENT OF TRANSPORTATION, OBSTRUCTION MARKING AND LIGHTING, ADVISORY CIRCULAR AC70/7460-1K (February 2007), available at https://oeaaa.faa.gov/oeaaa/external/content/AC70 7460 1K.pdf
- 7. UNITED STATES DEPARTMENT OF ENERGY, FEDERAL ENERGY REGULATORY COMMISSION AND THE NORTH AMERICAN ELECTRIC AND RELIABILITY CORPORATION, Report on Transmission Facility Outages During the Northeast Snowstorm of October 29-30, 2011 Causes and Recommendations, May 31, 2012, available at http://ferc.gov/legal/staff-reports/05-31-2012-ne-outage-report.pdf
- 8. NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION, Critical Infrastructure Protection, CIP-014-1, Physical Security Standards, May 1, 2014, available at http://www.nerc.com/pa/Stand/Reliability%20Standards/CIP-014-1.pdf

- 9. UNITED STATES DEPARTMENT OF ENERGY, FEDERAL ENERGY REGULATORY COMMISSION, Guidelines for the Protection of Natural, Historic, Scenic and Recreational Values in the Design and Location of Rights-of-Way and Transmission Facilities, November 27, 1970.
- 10. UNITED STATES DEPARTMENT OF THE INTERIOR, Order No. 3331, Designation of the Connecticut River as a National Blueway, January 3, 2014, available at http://www.fws.gov/northeast/pdf/SO_3331_Watershed_Partnerships.pdf

REGIONAL

- 11. ISO-NEW ENGLAND, INC., Power Generation and Fuel Diversity in New England, August 25, 2005, available at http://www.iso-ne.com/pubs/whtpprs/iso-ne-paper.pdf
- 12. ISO-NEW ENGLAND, INC., *Electricity Costs White Paper*, June 1, 2006, *available at http://www.iso-ne.com/pubs/whtpprs/elec costs wht ppr.pdf*
- 13. ISO NEW ENGLAND, 2014 Regional System Plan, November 6, 2014, http://www.iso-ne.com/system-planning/system-plans-studies/rsp
- 14. ISO-NEW ENGLAND, INC., 2015-2024 Forecast Report of Capacity, Energy, Loads & Transmission (CELT), May 1, 2015, available at http://www.iso-ne.com/static-assets/documents/2015/05/2015 celt report.pdf

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- 15. CONNECTICUT SITING COUNCIL, Electric and Magnetic Field Best Management Practices for the Construction of Electric Transmission Lines in Connecticut, December 14, 2007, revised February 20, 2014, available at http://www.ct.gov/csc/emf-bmp
- CONNECTICUT SITING COUNCIL, 2012/2013 Forecast of Electric Loads and Resources, December 12, 2013, available at http://www.ct.gov/csc/lib/csc/pendingproceeds/forecast/2012/2013/f2012/13 finalreport20131212.pdf
- 17. CONNECTICUT SITING COUNCIL, White Paper on the Security of Siting Energy Facilities, October 8, 2009, available at http://www.ct.gov/csc/lib/csc/docket 346/whiteppr final.pdf
- 18. CONNECTICUT SITING COUNCIL, *Investigation into the Life Cycle Costs of Electric Transmission Lines*, November 15, 2012, *available at* http://www.ct.gov/csc/lib/csc/lifecycle2011/life cycle final report.pdf
- 19. Letter from Robert Carberry, Project Manager, NEEWS Siting and Permitting, Connecticut Light & Power Company to Melanie Bachman, Acting Executive Director, Connecticut Siting Council regarding underground reconstruction of distribution line segments at transmission line road crossings, dated May 17, 2013.
- 20. CONNECTICUT SITING COUNCIL, PETITION NO. 36 The Connecticut Light and Power Company declaratory ruling for construction of a double circuit 115-kV line at the Mianus River, in Greenwich. Record.
- 21. CONNECTICUT SITING COUNCIL, PETITION NO. 268 The Connecticut Light and Power Company declaratory ruling for a proposed addition to the Tomac Substation and an associated modification to a 115-kV transmission line, in Greenwich. Record.

- 22. CONNECTICUT SITING COUNCIL, PETITION NO. 488 Connecticut Light and Power Company declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for modifications to an existing electric substation facility (Cos Cob Substation) located off Sound Shore Drive, Greenwich, Connecticut. Record
- 23. CONNECTICUT SITING COUNCIL, PETITION NO. 692 Connecticut Light & Power Company declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed installation of a circuit breaker and associated equipment at Cos Cob Metro-North Railroad 35K Substation in Greenwich, Connecticut. Record.
- 24. CONNECTICUT SITING COUNCIL, PETITION NO. 812 Connecticut Jet Power LLC declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed construction, maintenance, and operation of two 20 MW peaking units located at the Cos Cob facility, Sound Shore Drive, Greenwich, Connecticut. Record.
- 25. CONNECTICUT SITING COUNCIL, PETITION NO. 950 The Connecticut Light and Power Company (CL&P) declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to the existing CL&P Cos Cob substation, located at Sound Shore Drive, Greenwich, Connecticut. Record.

Department of Energy and Environmental Protection

- 26. STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION, Connecticut Guidelines for Soil Erosion and Sediment Control, DEP Bulletin 34, May 2002, last revised September 2007, available at http://www.ct.gov/dep/cwp/view.asp?a=2720&q=325660&depNav GID=1654
- 27. State of Connecticut Department of Energy and Environmental Protection, *The Connecticut Stormwater Quality Manual*, 2004, *and appendices, available at*http://www.ct.gov/DEP/cwp/view.asp?a=2721&q=325704&depNav_GID=1654
- 28. STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, Amphibians and Reptiles in Connecticut, DEP Bulletin 32, Michael W. Klemens, 2000, available at http://ctdepstore.com/Amphibians-and-Reptiles-in-Connecticut-101.htm
- 29. STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, BUREAU OF WATER MANAGEMENT, PLANNING AND STANDARDS DIVISION, *Water Quality Standards*, Surface Water Quality Standards Effective February 25, 2011 and Ground Water Quality Standards Effective April 12, 1996, *available at* http://www.ct.gov/dep/lib/dep/water/water quality standards/wqs.pdf
- 30. STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, Connecticut Air Quality Standards, Effective April 15, 2014, Regulations of Connecticut State Agencies §§ 22a-174-24, et seq., available at http://www.ct.gov/deep/lib/deep/air/regulations/mainregs/sec24.pdf
- 31. STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, *Connecticut Noise Control Regulations*, Effective June 15, 1978, Regulations of Connecticut State Agencies §§22a-69-1, et seq., *available at* http://www.ct.gov/deep/lib/deep/regulations/22a/22a-69-1through7.pdf
- 32. STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, 2014 Integrated Resource Plan for Connecticut, March 17, 2015, available at http://www.dpuc.state.ct.us/DEEPEnergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/8e95d81c37c7237085257e0b0047c0b2?OpenDocument

33. STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, 2013 Comprehensive Energy Strategy for Connecticut, February 19, 2013, available at http://www.ct.gov/deep/lib/deep/energy/cep/2013 ces final.pdf

Department of Public Health

34. STATE OF CONNECTICUT, DEPARTMENT OF PUBLIC HEALTH, *Electric and Magnetic Fields (EMF): Health Concerns Fact Sheet*, April 2008, *available at* http://www.ct.gov/dph/lib/dph/environmental health/eoha/pdf/emf fact sheet - 2008.pdf

Department of Transportation

- 35. STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, ConnDOT Drainage Manual, 2000, last revised December 2003, available at http://www.ct.gov/dot/cwp/view.asp?a=3200&q=260116
- 36. STATE OF CONNECTICUT, DEPARTMENT OF TRANSPORTATION, *Utility Accommodation Manual*, February 2009, *available at* http://www.ct.gov/dot/lib/dot/documents/dutilities/ACCOMODATION.pdf
- 37. STATE OF CONNECTICUT, DEPARTMENT OF TRANSPORTATION, BUREAU OF ENGINEERING AND HIGHWAY OPERATIONS, *Public Service Facility Policy and Procedures for Highways in Connecticut*, November 2008, *available at* http://www.ct.gov/dot/lib/dot/documents/dutilities/UtilityPolicyProcedures.pdf

Other State Agencies

- 38. PUBLIC UTILITIES REGULATORY AUTHORITY, Cybersecurity and Connecticut's Public Utilities, April 14, 2014, available at http://www.ct.gov/pura/lib/pura/electric/cyber-report-041414.pdf
- 39. STATE OF CONNECTICUT, DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT, STATE HISTORIC PRESERVATION OFFICE, *Investment in Connecticut: State Historic Preservation Plan 2011-2016*, July 2011, available at http://www.ct.gov/cct/lib/cct/state historic preservation plan ic.pdf
- 40. STATE OF CONNECTICUT, OFFICE OF POLICY AND MANAGEMENT, Conservation and Development Policies Plan for Connecticut 2013-2018, June 5, 2013, available at http://www.ct.gov/opm/lib/opm/igp/org/cdupdate/2013-2018 cd plan.pdf
- 41. Final Report of the Two Storm Panel, January 9, 2012, *available at* http://www.governor.ct.gov/malloy/lib/malloy/two storm panel final report.pdf
- 42. STATE OF CONNECTICUT, CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY, Comprehensive Plan FY 2013 through FY 2015, available at http://www.ctcleanenergy.com/Portals/0/FY13%20Comprehensive%20Plan.pdf
- 43. STATE OF CONNECTICUT, DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION, DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY, State of Connecticut State Response Framework, Version 2.0, August 2011, available at http://www.ct.gov/demhs/lib/demhs/ct_srf_aug_2011.pdf
- 44. STATE OF CONNECTICUT, DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION, DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY, State of Connecticut State Response Framework, Draft Connecticut Emergency Support Function 12, All Hazards Energy and Utilities Annex, July 2012, available at http://www.ct.gov/demhs/lib/demhs/eppi/esf 12 all-hazards-energy-and-utilities-annex-final-draft-july-2012.pdf

45. GOVERNOR'S STEERING COMMITTEE ON CLIMATE CHANGE, ADAPTATION SUBCOMMITTEE, Connecticut Climate Change Preparedness Plan, Adaptation Strategies for Agriculture, Infrastructure, Natural Resources and Public Health Climate Change Vulnerabilities, 2011, available at http://www.ct.gov/deep/lib/deep/climatechange/connecticut_climate_preparedness_plan_2011.pdf

TECHNICAL

- 46. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields From AC Power Lines, IEEE Std 644-1994, Reaffirmed 2008, available for purchase at http://standards.ieee.org/findstds/standard/644-1994.html
- 47. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, IEEE Guide for the Design, Construction, and Operation of Safe and Reliable Substations for Community Acceptance and Environmental Compatibility, IEEE Std 1127-2013, available for purchase at http://standards.ieee.org/findstds/standard/1127-2013.html
- 48. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, 2015 IEEE Guide for Animal Deterrents for Electric Power Supply Substations, June 9, 2015, available for purchase at https://standards.ieee.org/findstds/standard/1264-2015.html
- 49. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, *National Electrical Safety Code*, American National Standards Institute, Standard C2-2012, August 1, 2011.
- 50. EXPONENT, INC., EMF and Health: Review and Update of the Scientific Research, January 28, 2009, available at http://transmission.bchydro.com/NR/rdonlyres/DEF09171-908A-48DF-A9DA-F28676D239FD/0/Exponent2009EMFUpdate0209.pdf
- 51. EXPONENT, INC., Current Status of Research on Extremely Low Frequency Electric and Magnetic Fields and Health:
 Interstate Reliability Project, January 10, 2011, available at
 http://www.ct.gov/csc/lib/csc/pendingproceeds/docket_424/424 application/v1interstate csc application
 v1.pdf (Appendix D EMF Health Report)

ENVIRONMENTAL

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- 53. ARAM J.K. CALHOUN & MICHAEL W. KLEMENS, Best Development Practices: Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States, MCA Technical Paper No. 5, Metropolitan Conservation Alliance 2002, available at http://www.umaine.edu/vernalpools/PDFs/Best%20Development%20Practices%20%20-%20%20Conserving%20Pool-breeding%20Amph.pdf
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- 55. AVIAN POWER LINE INTERACTION COMMITTEE, Suggested Practices for Avian Protection on Power Lines, 2006, available at http://www.aplic.org/uploads/files/2643/SuggestedPractices2006(LR-2).pdf

MAPS

- 56. STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, NATURAL RESOURCES DIVISION, *Atlas of Connecticut Topographic Maps, DEP Bulletin 17*, 1992, *available at* http://www.ct.gov/deep/cwp/view.asp?a=2701&q=323450&deepNav_GID=1636
- 57. STATE OF CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, Natural Diversity Database Map for the Towns of Greenwich, last updated December 2014, available at http://www.depdata.ct.gov/naturalresources/endangeredspecies/nddbpdfs.asp
- 58. CONNECTICUT FOREST & PARK ASSOCIATION, *Connecticut Walk Book West*, Ann T. Colson, ed., 19th ed. 2006, *available at* http://www.ctwoodlands.org/node/17
- 59. National Audubon Society, *Connecticut Important Bird Areas*, last updated 2015, *available at* http://netapp.audubon.org/iba/state/US-CT
- 60. Mail-A-Map Street Map, Town of Greenwich, available at http://mailamap.com/street-maps
- 61. UNITED STATES GEOLOGICAL SURVEY, Connecticut Topographic Map Collection, available at http://magic.lib.uconn.edu/topographic_maps.html
- 62. STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, Connecticut Official State Tourism Map
- E. State Agency comments
- F. Municipal comments
 - 1. Comments from Greenwich Planning & Zoning, dated April 6, 2015
 - 2. Comments from Greenwich Planning & Zoning, dated September 1, 2015

II. Appearance by Applicant

Applicant: Eversource Energy

Representative: Marianne Barbino Dubuque, Esq.

Carmody Torrance Sandak & Hennessey LLP

A. Administrative Notice.

- 1. ISO NEW ENGLAND, INC., TRANSMISSION OPERATING AGREEMENT AMONG ISO-NEW ENGLAND, INC., AND PARTICIPATING TRANSMISSION OWNERS, February 1, 2005, available at http://www.iso-ne.com/regulatory/toa/v1_er07-1289-000_toa_composite.pdf
- 2. ISO NEW ENGLAND, INC., OVERVIEW OF THE BULK POWER SYSTEM AND ISO NEW ENGLAND, ISO-101, October 1, 2014, *available at* http://isonewengland.org/static-assets/documents/2014/08/iso101-t1-isocore.pdf
- 3. ISO NEW ENGLAND, INC., 2013 REGIONAL SYSTEM PLAN (November 8, 2013), available at http://www.iso-ne.com/trans/rsp/2013/index.html
- 4. ISO NEW ENGLAND PLANNING PROCEDURE 3, PP 3 RELIABILITY STANDARDS FOR THE NEW ENGLAND AREA BULK POWER SUPPLY SYSTEM. Effective Date: March 5, 2010, available at http://www.iso-ne.com/rules_proceds/isone_plan/pp03/pp3_r5.pdf
- 5. ISO New England Inc. Transmission, Markets and Servicses Tariff (Formerly known as FERC Electric Tariff No. 3). October 1, 2011, *available at* http://www.iso-ne.com/regulatory/tariff/sect_1/sect_i.pdf

- 6. ISO NEW ENGLAND INC. NEW ENGLAND 2030 POWER SYSTEM STUDY, REPORT TO THE NEW ENGLAND GOVERNORS – 2009 ECONOMIC STUDY: SCENARIO ANALYSIS OF RENEWABLE RESOURCE DEVELOPMENT February 2010, available at http://www.isone.com/committees/comm_wkgrps/prtcpnts_comm/pac/reports/2010/economicstudyreportfinal_022610.pd f
- Northeast Power Coordinating Council, Inc. Regional Reliability Reference Directory #1, Design and Operation of the Bulk Power System. December 1, 2009 (replaced Document A-2), available at https://www.npcc.org/Standards/Directories/Directory%201_Design%20Ops%20BPS%20clean%20GJD%2 020150331_GJD.pdf
- 8. Northeast Power Coordinating Council, Inc. Regional Reliability Reference Directory #4, Bulk Power System Protection Criteria. December 1, 2009 (replaced Document A-5), available at https://www.npcc.org/Standards/Directories/Directory%204%20-%20System%20Protection%20Criteria%20Clean_20150331_GJD.pdf
- 9. **DOCKET NO. 346** Implementation of Section 8 and Section 54 of Public Act No. 07-242, An Act Concerning Electricity and Energy Efficiency. Record.
- 10. **DOCKET NO. 217** Northeast Utilities Service Company Certificate of Environmental Compatibility and Public Need for the construction of a 345-kV electric transmission line and reconstruction of an existing 115-kV electric transmission line between Connecticut Light and Power Company's Plumtree Substation in Bethel, through the Towns of Redding, Weston, and Wilton, and to Norwalk Substation in Norwalk, Connecticut.
- 11. **DOCKET NO. 272** The Connecticut Light and Power Company and The United Illuminating Company Certificate of Environmental Compatibility and Public Need for the construction of a new 345-kV electric transmission line and associated facilities between the Scovill Rock Switching Station in Middletown and the Norwalk Substation in Norwalk, Connecticut. This includes construction of the Beseck Switching Station in Wallingford, East Devon Substation in Milford, and Singer Substation in Bridgeport and modifications to the Scovill Rock Switching Station and the Norwalk Substation and certain interconnections.
- 12. **DOCKET NO. 292 -** The Connecticut Light & Power Company Certificate of Environmental Compatibility and Public Need for the construction and operation of 8.7 miles of new underground 115-kilovolt electric transmission cables extending from CL&P's existing Glenbrook Substation in the City of Stamford, through the Town of Darien, to CL&P's existing Norwalk Substation in the City of Norwalk.
- 13. **DOCKET NO. 370** Consolidated proceeding pursuant to the Connecticut Energy Advisory Board (CEAB) Request for Proposal (RFP) process under C.G.S. §16a-7c. **Original application:** The Connecticut Light & Power Company Certificates of Environmental Compatibility and Public Need for the Connecticut Valley Electric Transmission Reliability Projects which consist of (1) The Connecticut portion of the Greater Springfield Reliability Project that traverses the municipalities of Bloomfield, East Granby, and Suffield, or potentially including an alternate portion that traverses the municipalities of Suffield and Enfield, terminating at the North Bloomfield Substation; and (2) the Manchester Substation to Meekville Junction Circuit Separation Project in Manchester, Connecticut. **Competing application:** NRG Energy, Inc. application pursuant to C.G.S. §16-50/(a)(3) for consideration of a 530 MW combined cycle generating plant in Meriden, Connecticut.
- 14. **DOCKET NO. 424** The Connecticut Light & Power Company Certificate of Environmental Compatibility and Public Need for the Connecticut portion of the Interstate Reliability Project that traverses the municipalities of Lebanon, Columbia, Coventry, Mansfield, Chaplin, Hampton, Brooklyn, Pomfret, Killingly, Putnam, Thompson, and Windham, which consists of (a) new overhead 345-kV electric transmission lines and associated facilities extending between CL&P's Card Street Substation in the Town of Lebanon, Lake Road Switching Station in the Town of Killingly, and the Connecticut/Rhode Island border in the Town of Thompson; and (b) related additions at CL&P's existing Card Street Substation, Lake Road Switching Station, and Killingly Substation.
- 15. **DOCKET NO. 435** The Connecticut Light & Power Company Certificate of Environmental Compatibility and Public Need for the Stamford Reliability Cable Project, which consists of construction, maintenance, and operation of a new 115-kV underground transmission circuit extending approximately 105 miles between Glenbrook and South End Substations, Stamford, Connecticut and related substation improvements.

- 16. 2012 INTEGRATED RESOURCES PLAN FOR CONNECTICUT, CONNECTICUT DEPT. OF ENERGY AND ENVIRONMENTAL PROTECTION, June 14, 2012, available at http://www.dpuc.state.ct.us/DEEPEnergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/cb827b1ffa58b2fd8525 7a1d0060c374?OpenDocument
- 17. STATE OF CONNECTICUT ENERGY EFFICIENCY BOARD, 2014 PROGRAMS AND OPERATIONS REPORT (MARCH 1, 2015), available at http://www.energizect.com/sites/default/files/uploads/Final%20ALR%202014%20Pages.2.26.15.pdf
- 18. CONNECTICUT CLEAN ENERGY FUND, FY 2013– FY 2015 COMPREHENSIVE PLAN, available at http://www.ctcleanenergy.com/Portals/0/FY13%20Comprehensive%20Plan.pdf
- 19. An Act Establishing Connecticut Heritage Areas, as amended, 2009 Conn. Acts 221 (Reg. Sess.), codified at Conn. Gen. Stat. §16a-27 (2010), available at http://www.cga.ct.gov/2009/ACT/PA/2009PA-00221-R00HB-06584-PA.htm
- 20. State Plan of Conservation and Development, as amended, Conn. Gen. Stat. §§ 16a-27 to 16a-32a (2015).
- 21. EXPONENT, INC., UPDATE OF RESEARCH ON EXTREMELY LOW FREQUENCY ELECTRIC AND MAGNETIC FIELDS AND HEALTH (MAY 1, 2011 JULY 31, 2012) CONNECTICUT SITING COUNCIL, DOCKET NO. 435, APPLICATION, APPENDIX D. 4.
- 22. THE BRATTLE GROUP, CONNECTICUT LIGHT AND POWER, AND THE UNITED ILLUMINATING COMPANY, INTEGRATED RESOURCE PLAN FOR CONNECTICUT. (January 1, 2010), available at http://www.ctenergy.org/pdf/2010IRP.pdf
- 23. United States Code of Federal Regulations Title 33, Clean Water Act, Sections 401 and 404.
- 24. Conn. Gen. Stat. §16-243 and §§16-11-134, and 135 of the Regulations of Connecticut State Agencies.
- 25. 2012-2021 Forecast Report of Capacity, Energy, Loads & Transmission (CELT). ISO New England Inc. System Planning, May 2012, *available at* http://www.iso-ne.com/trans/celt/report/2012/2012_celt_report.pdf
- 26. The Connecticut Light and Power Company, 2012 Forecast of Loads and Resources for the Period 2012-2021. March 1, 2012, available at http://www.ct.gov/csc/lib/csc/pendingproceeds/forecast_2012_2013/annual_reports/f2012-20120301-cl&p.pdf
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- 28. The Connecticut Light and Power Company, 2014 Forecast of Loads and Resources for the Period 2012-2021. February 28, 2014, available at http://www.ct.gov/csc/lib/csc/pendingproceeds/forecast_2014_2015/2014documents/f2014-20140228-cl&p.pdf
- 29. The Connecticut Light and Power Company, doing business as Eversource Energy, 2015 Forecast of Loads and Resources for the Period 2015-2024, March 2, 2015, *available at* http://www.ct.gov/csc/lib/csc/pendingproceeds/forecast_2014_2015/2015_documents/1_marchfilings/f-2014-2015-20150302_eversourcerpt.pdf
- 30. The New England Energy Alliance, Electricity Transmission Infrastructure Development in New England Value through Reliability, Economic and Environmental Benefits. Polestar Communications & Strategic Analysis. December 2007, available at http://www.newenglandenergyalliance.org/
- 31. North American Electric Reliability Corporation, Special Report: Electric Industry Concerns on the Reliability Impacts of Climate Change Initiatives. Version 1.1. November 12, 2008, *available at* http://www.nerc.com/files/2008-climate-initiatives-report.pdf
- 32. World Health Organization, Electromagnetic Fields and Public Health, Exposure to Extremely Low Frequency Fields Fact Sheet #322. June 2007, *available at* http://www.who.int/mediacentre/factsheets/fs322/en/index.htm

B. Exhibits for Identification.

1. Application for a Certificate of Environmental Compatibility and Public Need filed by Eversource Energy, received June 26, 2015, and attachments and bulk file attachments including:

Bulk file exhibits:

Bulk Filing #1

- a. Abutter Information (Notice and List)
- b. Town of Greenwich Inland Wetlands and Watercourses Regulations
- c. Town of Greenwich Zoning Regulations and Amendments
- d. Town of Greenwich Zoning Map
- e. 2006-2015 Regional Plan of Conservation and Development
- f. Greenwich Substation Location Review Filing
- g. Greenwich Substation and Line Project Municipal Consultation Filing
- h. Greenwich Plan of Conservation and Development

Bulk Filing #2

- i. Letter from Eversource regarding Bulk Filing #2, dated July 10, 2015, including affidavits of public notice
- j. Municipal consultation materials
- 2. Eversource Submittal of Application Section M Errata, dated July 21, 2015
- 3. Eversource Responses to Council Interrogatories, Set I, dated August 13, 2015
- 4. Eversource Resubmittal of Responses to Council Interrogatories 18-19, dated August 20, 2015
- 5. Eversource Submittal of Alternate Site Layout Drawing, dated August 21, 2015
- 6. Eversource Submittal of List of Sign Posting Locations, dated August 21, 2015
- 7. Eversource Submittal of Field Review Driving Route, dated August 21, 2015
- 8. Eversource Submittal of Administrative Notice Items, dated August 21, 2015
- 9. Pre-filed Testimony of Kenneth Bowes, Raymond Gagnon, and Jacqueline Gardell, and attachments, dated August 25, 2015
- 10. Resumes of Witnesses
 - a. Kenneth B. Bowes
 - b. Raymond Gagnon, P.E.
 - c. Jacqueline A. Gardell
 - d. John C. Case
 - e. Robert J. Russo, P.E.
 - f. Salvatore Giuliano
 - g. David A. Ferrante, P.E.
 - h. Joseph R. Swift
 - i. Gabor Mezei, M.D., Ph.D.
 - j. Leslie Hinzman
 - k. Lisa Cooper, C.P.A.
- 11. Pre-filed Testimony of Michael Libertine, dated August 25, 2015
- 12. State of Connecticut, Department of Energy and Environmental Protection, Natural Diversity Database Determination Letter, dated July, 23, 2015, received August 25, 2015
- 13. Greenwich Substation & Line Project "Open House Video LOOP", received August 25, 2015
- Eversource Responses to Office of Consumer Counsel Interrogatories, Set I, 001, 005, 006, 008, 010, 011, 018, dated August 26, 2015

- 15. Eversource Responses to Office of Consumer Counsel Interrogatories, Set I, 003, 004, 009, 012, 013, 014, 015, 016, dated August 27, 2015
- 16. Eversource Responses to Office of Consumer Counsel Interrogatories, Set I, 002, 007, 017, dated August 28, 2015
- 17. Eversource Supplemental Response to Council Interrogatory, Set I, CSC 014, dated August 31, 2015
- 18. Eversource Responses to Field Point Estate Townhouse Interrogatories, Set I, dated August 31, 2015
- 19. Eversource Field Review Handout, dated September 1, 2015
- 20. Eversource Responses to Council Interrogatories, Set II, dated September 25, 2015
- 21. Eversource Energy Responses to Bella Nonna Restaurant & Pizzeria Interrogatories, dated September 29, 2015
- 22. Eversource Energy Responses to Greenwich Chiropractic & Nutrition Interrogatories, dated September 29, 2015
- 23. Eversource Energy Responses to Field Point Estate Townhouses Interrogatories, Set II, dated September 29, 2015
- 24. Eversource Energy Responses to Office of Consumer Counsel Interrogatories, Set II, dated September 29, 2015
- 25. Eversource Energy Supplemental Direct Testimony of Kenneth Bowes, Raymond Gagnon, and Jaqueline Gardell with attachments, dated September 29, 2015
- 26. Eversource Energy Direct Testimony of Gabor Mezei, dated September 29, 2015
- 27. Eversource Energy Responses to Pet Pantry Super Discount Stores LLC Interrogatories, 1-30, 33-37, 39-43, 45-46, 48-49, 51-53, 56-57, 59, & 61.
- 28. Eversource Energy Response to Office of Consumer Counsel Interrogatories, Set II, Revised 25, dated September 30, 2015
- 29. Eversource Energy Responses to Pet Pantry Super Discount Stores LLC Interrogatories, 31-32, 38, 44, 47, 50, 54-55, 58, 60, 62-63, and Revised 25, dated September 30, 2015

C. Swear Witnesses

- 1. Kenneth B. Bowes, Vice President-Engineering, Eversource Energy
- 2. Raymond Gagnon, P.E., Director, Transmission Projects, Eversource Energy Service Company
- 3. Jacqueline A. Gardell, Transmission Project Manager, Eversource Energy Service Company
- 4. John C. Case, Manager-Transmission Line, Eversource Energy
- 5. Robert J. Russo, P.E., Manager-Transmission Planning, Eversource Energy
- 6. Salvatore Giuliano, Manager-Corporate Real Estate, Eversource Energy
- 7. David A. Ferrante, P.E., Manager-Distributed Energy Resources and Technology, Eversource Energy
- 8. Joseph R. Swift, Supervisor-Conservation and Load Management, Eversource Energy
- 9. Gabor Mezei, M.D., Ph.D., Senior Managing Scientist, Exponent
- 10. Leslie Hinzman, Senior Project Engineer, Power Engineers, Inc.
- 11. Michael Libertine, Director of Siting and Permitting, All-Points Technology Corporation
- 12. Lisa M. Cooper, C.P.A., Eversource Energy
- D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.

- E. Cross Examination.
 - 1. Council
 - 2. Office of Consumer Counsel (Attorney Bidra/ Ms. Bain)
 - 3. Parker Stacy
 - 4. Pet Pantry (Attorney Bergamo/Marcus)
 - 5. Field Point Estate Townhouses (Ms. Depetris/Mr. Ueda)
 - 6. Christine Edwards
 - 7. Richard Granoff
 - 8. Grouped Intervenors
 - a. Bella Nonna Restaurant & Pizzeria
 - b. Greenwich Chiropractic & Nutrition
 - c. Joel Paul Berger
 - d. Meg Glass
 - 9. Cecilia Morgan

III. Appearance by Party: Office of Consumer Counsel

Representative: Lauren Henault Bidra, Esq., Staff Attorney

Joseph A. Rosenthal, Esq. Principal Attorney Margaret Bain, Associate Rate Specialist

- A. Administrative Notice.
 - State of New York Public Service Commissions order Establishing Brooklyn/Queens Demand Management Program, December 12, 2014, available at http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={83594C1C-51E2-4A1A-9DBB-5F15BCA613A2}
- B. Exhibits for Identification.
 - 1. Office of Consumer Counsel Request for Party Status, dated July 13, 2015
- C. Swear Witnesses
- D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.
- E. Cross Examination.
 - 1. Council
 - 2. Applicant
 - 3. Parker Stacy
 - 4. Pet Pantry (Attorney Bergamo)
 - 5. Field Point Estate Townhouses (Ms. Depetris/Mr. Ueda)
 - 6. Christine Edwards
 - 7. Richard Granoff
 - 8. **Grouped Intervenors**
 - a. Bella Nonna Restaurant & Pizzeria
 - b. Greenwich Chiropractic & Nutrition
 - c. Joel Paul Berger
 - d. Meg Glass
 - Cecilia Morgan

- IV. Appearance by Intervenor: Parker Stacy
 - A. Administrative Notice.
 - B. Exhibits for Identification.
 - 1. Parker Stacy request for party status, dated July 30, 2015
 - 2. Parker Stacy pre-filed testimony, including attached photographs, dated September 21, 2015
 - C. Swear Witnesses
 - D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.
 - E. Cross Examination.
 - 1. Council
 - 2. Applicant (Attorney Dubuque)
 - 3. Office of Consumer Counsel (Attorney Bidra/Ms. Bain)
 - 4. Pet Pantry (Attorney Bergamo/Marcus)
 - 5. Field Point Estate Townhouses (Ms. Depetris/Mr. Ueda)
 - 6. Christine Edwards
 - 7. Richard Granoff
 - 8. **Grouped Intervenors**
 - a. Bella Nonna Restaurant & Pizzeria
 - b. Greenwich Chiropractic & Nutrition
 - c. Joel Paul Berger
 - d. Meg Glass
 - 9. Cecilia Morgan

V. Appearance by Intervenor: Pet Pantry Super Discount Stores LLC

Representatives: Mark L. Bergamo, Esq. Edward L. Marcus, Esq.

- A. Administrative Notice.
- B. Exhibits for Identification.
 - 1. Pet Pantry Super Discount Stores LLC request for party and intervenor status, dated August 5, 2015
- C. Swear Witnesses
- D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.
- E. Cross Examination.
 - 1. Council
 - 2. Applicant (Attorney Dubuque)
 - 3. Office of Consumer Counsel (Attorney Bidra/Ms. Bain)
 - Parker Stacy
 - 5. Field Point Estate Townhouses (Ms. Depetris/Mr. Ueda)
 - 6. Christine Edwards
 - 7. Richard Granoff

8. **Grouped Intervenors**

- a. Bella Nonna Restaurant & Pizzeria
- b. Greenwich Chiropractic & Nutrition
- c. Joel Paul Berger
- d. Meg Glass
- 9. Cecilia Morgan

VI. Appearance by Intervenor: Field Point Estate Townhouses, Inc.

Representatives: Carissa Depetris
Dwight Ueda

A. Administrative Notice.

- 1. Page 1 of Gabor Mezei, M.D., Ph.D., Senior Managing Scientist, Exponent, Curriculum Vitae
- 2. David Armstrong, January 9, 2007, *Amid Suits Over Molds, Experts Wear Two Hats,* The Wall Street Journal, available at http://www.wsj.com/articles/SB116831654647871083
- 3. Hardell, L., Walker, M., Walhjalt, B., Friedman, L., & Richter, E. (2006). Secret ties to industry and conflicting interests in cancer research. *American Journal of Industrial Medicine*, 50(3). Available at http://www.prevention.ch/amjinmed2006.pdf
- 4. Michaels, D., Monforton, C., & Lurie, P. (2006). Selected science: An industry campaign to undermine an OSHA hexavalent chromium standard. *Environmental Health: A Global Access Science Source*. Available at http://www.ehjournal.net/content/5/1/5
- 5. Table 21.2: A Comparison of DHS reviewers' degree of certainty with that of other agencies. In Neutra, R., DelPizzo, & Lee, G. (2002). An evaluation of the possible risks from electric and magnetic fields (emf's) from power lines, internal wiring, electrical occupations, and appliances. *California EMF Program*. Available at http://www.ehib.org/emf/RiskEvaluation/riskeval.html
- Henshaw, D. (2001). Summary and Commentary of Neutra, R., DelPizzo, & Lee, G. (2002). An evaluation of the possible risks from electric and magnetic fields (emf's) from power lines, internal wiring, electrical occupations, and appliances. *California EMF Program*. Available at http://materias.fi.uba.ar/6209/download/HENSHAW.pdf
- 7. Lai, H. & Singh, N. (2004). Magnetic-field-induced DNA strand breaks in brain cells of the rat. *Environmental Health Perspectives*, 112(6). Available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241963/
- 8. Blank, M. (2012). The cellular stress response: EMF-DNA interaction. *BioInitiative Working Group, Section* 7. Available at http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec07_2012_Evidence_for_Stress_Response_Cellular.pdf
- 9. Lai, H. (2014). Genetic effects of non-ionizing electromagnetic fields. *BioInitiative Working Group, Section 6*. Available at http://bioinitiative.org/report/wp-content/uploads/pdfs/sec06_2012_genetic_effects_non-ionizing.pdf
- B. Exhibits for Identification.
 - 1. Field Point Estate Townhouses, Inc. request for intervenor status, dated August 20, 2015
- C. Swear Witnesses
- D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.
- E. Cross Examination.
 - 1. Council
 - 2. Applicant (Attorney Dubuque)
 - 3. Office of Consumer Counsel (Attorney Bidra/Ms. Bain)

- 4. Parker Stacy
- 5. Pet Pantry (Attorney Bergamo/Marcus)
- 6. Christine Edwards
- 7. Richard Granoff
- 8. **Grouped Intervenors**
 - a. Bella Nonna Restaurant & Pizzeria
 - b. Greenwich Chiropractic & Nutrition
 - c. Joel Paul Berger
 - d. Meg Glass
- 9. Cecilia Morgan

VII. Appearance by Intervenor:

Christine Edwards

- A. Administrative Notice.
- B. Exhibits for Identification.
 - 1. Christine Edwards request for intervenor status and pre-filed information, dated August 25, 2015
- C. Swear Witnesses
- D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.
- E. Cross Examination.
 - 1. Council
 - 2. Applicant (Attorney Dubuque)
 - 3. Office of Consumer Counsel (Attorney Bidra/Ms. Bain)
 - 4. Parker Stacy
 - 5. Pet Pantry (Attorney Bergamo/Marcus)
 - 6. Field Point Estate Townhouses (Ms. Depetris/Mr. Ueda)
 - 7. Richard Granoff
 - 8. **Grouped Intervenors**
 - a. Bella Nonna Restaurant & Pizzeria
 - b. Greenwich Chiropractic & Nutrition
 - c. Joel Paul Berger
 - d. Meg Glass
 - 9. Cecilia Morgan

VIII. Appearance by Intervenor:

Richard Granoff

- A. Administrative Notice.
- B. Exhibits for Identification.
 - 1. Richard Granoff request for party status including attached photo-simulation exhibit, dated August 26, 2015
 - 2. Richard Granoff e-mail response to Eversource Interrogatory, including attached photograph, dated September 22, 2015
- C. Swear Witnesses
- D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.

E. Cross Examination.

- 1. Council
- 2. Applicant (Attorney Dubuque)
- 3. Office of Consumer Counsel (Attorney Bidra/Ms. Bain)
- 4. Parker Stacy
- 5. Pet Pantry (Attorney Bergamo/Marcus)
- 6. Field Point Estate Townhouses (Ms. Depetris/Mr. Ueda)
- 7. Christine Edwards
- 8. **Grouped Intervenors**
 - a. Bella Nonna Restaurant & Pizzeria
 - b. Greenwich Chiropractic & Nutrition
 - c. Joel Paul Berger
 - d. Meg Glass
- 9. Cecilia Morgan

IX. Appearance by Grouped Intervenors: Bella Nonna Restaurant & Pizzeria

Greenwich Chiropractic & Nutrition

Joel Paul Berger Meg Glass

Representatives: Anthony Crudele

Dr. Danielle Luzzo Joel Paul Berger Meg Glass

- A. Administrative Notice.
- B. Exhibits for Identification.
 - 1. Bella Nonna Restaurant & Pizzeria request for intervenor status, dated August 28, 2015
 - 2. Greenwich Chiropractic & Nutrition request for intervenor status, dated August, 31, 2015
 - 3. Joel Paul Berger request for intervenor status, including attached letter to Eversource Energy, dated September 1 2015
 - 4. Meg Glass request for intervenor status, dated September 22, 2015
- C. Swear Witnesses
- D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.
- E. Cross Examination.
 - 1. Council
 - 2. Applicant (Attorney Dubuque)
 - 3. Office of Consumer Counsel (Attorney Bidra/Ms. Bain)
 - 4. Parker Stacy
 - 5. Pet Pantry (Attorney Bergamo/Marcus)
 - 6. Field Point Estate Townhouses (Ms. Depetris/Mr. Ueda)
 - 7. Christine Edwards
 - 8. Richard Granoff
 - 9. Cecilia Morgan

X. Appearance by Intervenor:

Cecilia Morgan

- A. Administrative Notice.
- B. Exhibits for Identification.
 - 1. Cecilia Morgan request for party status, including attached letter to Connecticut Siting Council, dated August 31, 2015
- C. Swear Witnesses
- D. Full Exhibits Verification of exhibits by witnesses and admission by the Council.
- E. Cross Examination.
 - 1. Council
 - 2. Applicant (Attorney Dubuque)
 - 3. Office of Consumer Counsel (Attorney Bidra/Ms. Bain)
 - 4. Parker Stacy
 - 5. Pet Pantry (Attorney Bergamo/Marcus)
 - 6. Field Point Estate Townhouses (Ms. Depetris/Mr. Ueda)
 - 7. Christine Edwards
 - 8. Grouped Intervenors
 - a. Bella Nonna Restaurant & Pizzeria
 - b. Greenwich Chiropractic & Nutrition
 - c. Joel Paul Berger
 - d. Meg Glass
- XI. Continuation by Connecticut Siting Council.